

HISTORY AND INFLUENCE  
OF THE  
LICHFIELD WATERS.

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THE HISTORY  
OF  
THE LICHFIELD WATERS.



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AN

INQUIRY

INTO THE

HISTORY AND INFLUENCE

OF THE

LICHFIELD WATERS:

INTENDED TO SHIEW THE NECESSITY OF AN IMMEDIATE AND FINAL

DRAINAGE OF THE POOLS.

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"There is an operation silently and constantly going on, which becomes an agent of perpetual change."

MANTELL'S WONDERS OF GEOLOGY.

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LICHFIELD: LOMAX, BIRD-STREET.

LONDON: MASTERS, ALDERSGATE-STREET.

M.DCCC.XL.



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## INTRODUCTION.

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A PROPOSAL to annihilate expanses of water, which have been carefully maintained for ages, may, at first, appear altogether unjustifiable. But this being solely because their history is commonly unknown, if a detail of hitherto unembodied facts regarding them lead to a consideration of their influence in a town, which is peculiarly capable of vast improvement, this essay will not have been written in vain.



# THE HISTORY OF THE LICHFIELD WATERS.



PLAN OF THE WATERS IN 1300.

*Scale three inches to a mile.*

- |   |  |   |
|---|--|---|
| <p>1. The Upper Pool.</p> <p>2. The Middle Pool.</p> <p>3. Stow Pool.</p> <p>4. Stow, surrounded by a Ditch and Pool.</p> |  | <p>5. The Close, surrounded by a Ditch and Pool.</p> <p>6. St. Mary's and the Friary, surrounded by water.</p> <p>7. Ponds in the Bishop's Marsh.</p> |
|---|--|---|

*Note. The water flows from west to east.*

In ancient time, the usual characteristics of a marsh evidently extended here, as variously as tradition represents. But for the purpose of understanding their general influence, it will be sufficient to speak only of those features of the district, which are recorded to have been immediately connected with the town. The waters of Lichfield, then, in the year 1300, consisted of pools, ponds and ditches of defence.

THE DITCHES, as marked on the plan, were those of Stow, the Close and the Town. *Stow Ditch*,<sup>1</sup> defended most part of Chad's place of abode at Stow, where a level line of water yet obtains. *The Close Ditch* was cut, five hundred years after this, through rising ground; and, as a main feature of the Bishop's camp, was carefully preserved until 1643, in which year it was finally drained. *The Town Ditch*—in part called the Castle Ditch—was also cut through rising ground, whence it was supplied with water; but being, in one direction, level and torpid, it became, in length of time, so choked up by vegetable growth, that a portion of it was then converted into "the common muck-hill,"<sup>2</sup> so called.

A small part only of this Ditch now remains; but its ancient line—encroachments allowed for—distinguishes the boundary of St. Mary's and the Friary, to this day.

THE PONDS in the Bishop's marsh, being fed solely by native and adjoining springs, continued little changed, until the middle of the last century; since when they have been somewhat altered, in consequence of their locality having been drained. Other ponds obtained in various directions, unnecessary to particularize.

THE POOLS, at the date of the plan, were three—the Upper pool, the Middle pool, and Stow pool.

THE UPPER POOL—this name being adopted solely for description's sake—is inferred to have extended, immediately north-west of the Bishop's marsh, over a tract, which being, in the present day, of lacustrine form, is occupied to a depth of many feet by eluvial

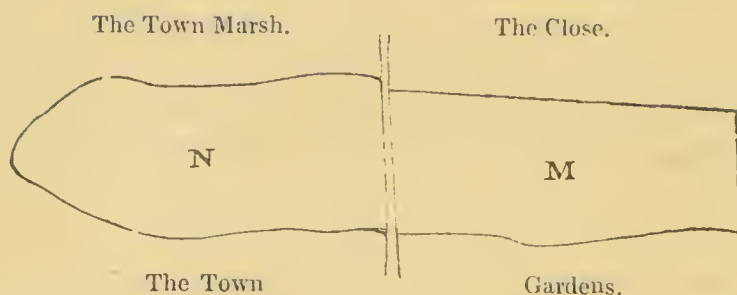
deposit ; while directly bordering it southwards, a line of rising sandy soil extends under the name of *The Pool Furlong*—a name and character, which remarkably strengthen an opinion, that a sheet of water anciently obtained here ; as indeed, on the authority of tradition, such is alluded to in “A Short Account of Lichfield.”

THE MIDDLE POOL lay immediately south and west of the cathedral, its extent, in the fourteenth century, being accounted for both by present natural appearances and by various ancient records. Thus the record of its mill, in Domesday Book, determines it *eastward* ; while other ancient allusions to familiar sites, as to places of secure foundation close to the water, denote its *southern* limit. A line of sloping sand soil remarkably contrasting with a plane of eluvial deposit marks the *western* extent ; and specific mention, in a legal document<sup>3</sup> of the ancient date under consideration, notes, though not with exactness, its *northern* range.

A sheet of water thus expanded would measure from 17 to 18 acres. But there are reasons for supposing, that the pool extended farther north, at the period just alluded to.

Now in the year 1310, Bishop Langton divided it by a causeway into two portions, which thence, until a succeeding Bishop of Lichfield transferred them by grant to the corporation, became known as the Bishop's pool and the Minster pool. When corporate property, however, the former obtained a variety of names, that of the Nether pool being the most frequent until, at length, when much diminished, it was only considered a division of the Minster pool.

## OF THE NETHER POOL.



THE NETHER POOL AND MINSTER POOL IN 1620.

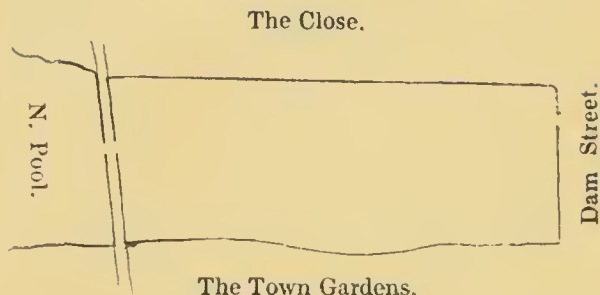
*Scale 9 inches to a mile.*

Although the Nether division of water, at this date, measured less than half its original extent, it henceforward diminished more rapidly than of old. So that, fancying the mischief to have resulted altogether from human “encroachments” and “ground gained out of the body of the pool,” the proprietors leased their remaining “wastes” by it to one person, “to the intent that the Lords of the Manor might know their own property !” And in their records of subsequent date—as of 1703, 5, 7, and 8,—a continued chain of evidence is afforded of the then unceasing diminution of the water and the progressive increase of “ground gained out of it.” This ground, however, was unavoidably a profitless swamp, which required such never-ending toil, that a tenant disposed of his interest in it—the landlords being only too happy to part with him ; because he had suffered their property to get “*in decay and out of order.*” His successor, on the contrary, they welcomed, by forthwith giving him a thirty-one years lease, “although seventeen or eighteen years good” of his purchased interest had to come. And

thus encouraged, he labored hard for nine years to keep down the “segs” in and solidify “the moggs by the Nether pool;” on which account, at the end of this period, he obtained yet further encouragement by a prolonged interest for forty years. But before a quarter of this term had expired—that is in 1730<sup>4</sup>—the “filth” of the water could be tolerated no longer; and so by means of the worst variety of circular drainage—a draining without an increased fall for the discharge of the streams—the now considered Nether division of the Minster pool became “immediately” annihilated.

\* \* \* The order for the final drainage, thus implied, requires an especial explanation; because, separately taken, it may appear as if the whole of the Minster pool were then intended to be “immediately stopt,” by means of “a ditch or gutter, on each side of” it,—or in other words, by means of circular drainage. For such purpose, however, this system was neither required nor practicable. It was not required, because all the superfluous water might have been, at once, discharged, by merely removing a sluice; and it was not practicable, because the municipal authorities could not “order” a ditch to be cut through the whole length of the Close,—a part of its boundary. Other orders, moreover, allude to a final, or temporary, draining of the place, by simply “letting it dry”—as, for instance, in 1753, 1782, and 1800. And whereas express mention of an expanse of water, above Langton’s causeway, is frequent, before 1730, no allusion whatever to it occurs it after this date; while, on the contrary, a map drawn in 1766 represents “gutters, cuts, and ditches” here—but no pool.

## OF THE MINSTER POOL.



THE MINSTER POOL IN 1670.

*Scale nearly 12 inches to a mile.*

Independently of geological explanation, it may be ascertained, by a variety of notices—as of those of Leland, Stowe, Camden, Speed, De Foe, Plot, Shaw, and the especial historians of Lichfield—that this sheet of water continued almost of its original extent until towards the end of the seventeenth century, at which date its north boundary was the lower rampart of the Close—a straight line,—while its south bank, formed by unscreened gardens, extended from the end of the causeway, immediately opposite the Swan Inn, to near the spot where Robert Lord Brooke was shot in 1643. And in support of this opinion, concerning the extent of the water, at the date alluded to, it may be mentioned, that a variety of rubbish—proving artificial interference—is found not far from the surface of the present town gardens, some of which are absolutely termed “encroachments,” in the books of the corporation.

The appearance of this division of the water gave no recorded trouble to the proprietors, for seventy-three years after the date of Speed’s map of it—1620 ; but

as, some years before the lapse of this period, it had naturally begun to receive an increased supply of mud, it required a more than ordinary cleansing by 1693. For the bargain with the miller, on this occasion, was not to make him allowance for a common hooking up of weeds out of a boat, while the mill was at work, but conditionally on account of "loss of time considerable," or, as the phrase is in subsequent orders, for "loss of time the mill stood idle" during the lack of water power.

The miller, nevertheless, being reasonably more solicitous about trade than ornament, made short work of it; and so his landlords were obliged to "finish" the undertaking in the following summer. And their cleansing of the pool must have been extensive; because the corporate notices of it for thirty six years subsequently are neither so frequent nor so pointed as they would have been, had it continued in a state of previously recorded "filth."

This period, however, having elapsed, it was again cleansed—the sluices being now raised to afford opportunity for "a ditch or gutter" being cut on each side of the Nether division—and new measures were adopted for its preservation; a tenant binding himself not only to keep it clean for a time, but to leave it clean, at the expiration of his interest. In drawing out his lease, moreover, a covenant having been omitted about "*grates for keeping in the filth,*" as well as grates "*to stop the mud at the head of the Minster pool,*" the mistake was rectified without delay; while, agreeably to the spirit of a former order, he was to make it hold a good and sufficient body of water, without allowing his proceedings "to clash with the covenants (in the lease) of Stow mill, *by turning any*

*of the mud down the stream*”—which even yet is not an unusual method of cleansing such a place—“to the prejudice of the streams or pool below.” Nor did the provisions rest here even; for he might readily have made it look clean, by raising a little mill-dam, a few inches, and therefore another special provision was added, that he was “not to pound the water higher than usual”—all which provisions evidently had reference both to a removal of “the mud at the head of the Minster pool,” in 1730—31, and to extensive cleansings, subsequently.

During these cleansings, however, the long exposed banks in the upper corners were not interfered with; and consequently these places had so far assumed the solid character by 1738, that one of them then began to be held upon especial lease, under the denomination of “a piece of land gained out of the Minster pool, near the bridge, and lying between Bird Street and Beacon Street; the same land extending from the Close wall to the Minster pool.”

Now on the south side, the “land waste” was—from strictly natural causes—more than twice as large as this; but of so little worth was it considered, as not adjoining valuable property, that it was, for some time, allowed to remain an unenclosed space; since it is noticed that certain hawkers then held stalls there, for the purpose of avoiding the pickage—or toll for breaking up ground—levied on standings in the Market place.

This portion of the then “Minster pool waste land” is, at present, the site of a Diocesan School!

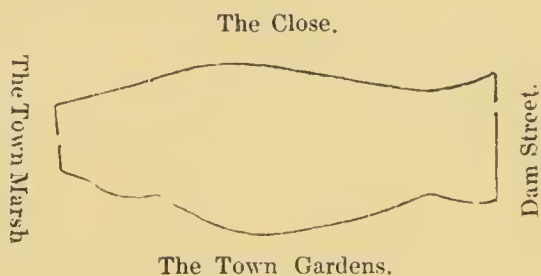
It has just been stated, that a tenant in 1731 bargained *to leave the Minster pool clean*; but before the expiration of his lease, he found that he had bargained

for too much—not because he was at pecuniary loss by the bargain, but—because he saw, that the pool would, somehow or other, keep filling up in spite of him. And as his landlords came to the same opinion in 1753, they made an express stipulation, at this date, that, “*if the Minster pool should, during the term (of a twenty one years lease) be let dry and the malt mill should cease to be used as a mill,*” that then a tenant should pay an advanced rent.

For reasons, however, not hard to be divined, the place is not yet let dry. Though if this peculiar source of “filth” had been discharged, eighty seven years ago, and if its then ample, unobstructed and unobstructing site—rich in soil, bordered by open gardens and parterres, and contiguous to one of the most chaste specimens of church architecture in the world, from which it was screened only by a few old buildings, since removed—had been laid out under a rigid and well devised plan of change, how improved would be the appearance, how brightened the prospects of the town, at this moment; since “in England advancement from good to better is a universal principle!” Whereas, the consequence of continuing to struggle against natural law was, that towards the close of the last century, increased stipulations by lease, with various parties, became unavoidable; amongst which not the least remarkable was an agreement, on the part of the miller, “*on five days’ notice, to lower the water in the Minster pool, from time to time.*”

This agreement resulted from a compromise unnecessary to explain, and being, moreover, subsequently improved upon, express permission was in consequence given to a tenant, in the succeeding lease of the meadow adjoining the Swan Inn, “to lay out

mud on the meadow,”—which mud he must evidently have obtained from the neighbouring pool. While as to the advantage of cleansing such a place at short intervals, the present method of keeping canals clean is an example in point.

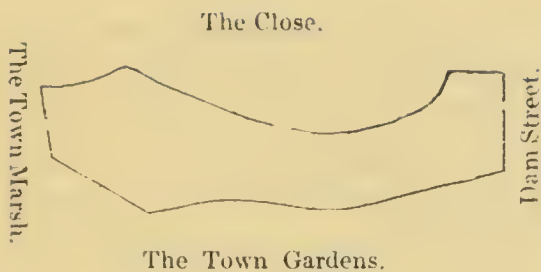


THE MINSTER POOL IN 1770.

*Scale nearly 12 inches to a mile.*

This sheet of water had now lost nearly a quarter of its expanse, within the course of a hundred years before the date under consideration. But as the loss had, in some measure, resulted from encroachments on the south side—especially near the centre, the effect of which may be, this day, witnessed—the Pool Walk was made here, its exact size being determined in Common Hall!

It was not well begun, however, when an account reached the projectors, of the Metropolitan Serpentine having been laid out, “under the direction of Messrs. Withers and Kimberly, by order of Queen Caroline,” and therefore it was “ordered that the north bank of the Minster pool be formed and laid out in a *serpentine* manner, at the discretion of the Bailiffs; and that application be made to the possessors of the gardens to assist therein,”—by helping themselves to part of it. So that the union of taste and labor soon brought it to the following improved shape:—



THE MINSTER POOL IN 1773

*Scale nearly 12 inches to a mile.*

The remaining portion of the pool, which, under the divided form, was, little more than a couple of centuries before, “*yn sum parte a quarter of a mile brod and in sum lesse,*” had now become reduced to two acres and a half! And although such diminution was partly caused by human interference, yet this very interference conferred essential benefit upon it, by deepening and narrowing the basin. It was deepened by the removal of mud from its upper part to the north side, for the purpose of producing the serpentine effect; and it was narrowed by means of this very effect. And thus not only was the channel for the stream improved, but *the Minster pool was extensively cleansed in 1773.*

Amongst the stipulations, which denote increased care, a very remarkable one occurred in 1782, the miller’s interest being then renewed, only “*subject to such restrictions, as the Bailiffs thought proper, particularly,*” what was this time made “*A RIGHT to lay the pool dry, or otherwise take such measures for THE CLEANSING of it, or laying dry the lands above the same or making other improvements.*” And that this very important and very expensive covenant was acted on, Shaw, in his History of Staffordshire, unconsciously

bears positive testimony. For he states, that the site, though "much grown up of late, was cleared in 1797,"—the year before his History was published. Yet what was the result? It was, that the "filth" accumulated so much faster than the corporation could remove it, that a public subscription became necessary for a cleansing of the place, before the expiration of the miller's interest!

A subscription then was commenced in 1801, some private gentlemen, who deemed a sheet of water no small ornament to their gardens, undertaking to see its basin *effectually* cleansed. And in consequence of this, it was deepened a yard or more, on the average, in 1802 and 1803—the landlords again exercising their "right to lay the pool dry." And such an immense and well remembered quantity of stuff out of it was removed to the Town Marsh, as raised this cold and hungry swamp, to its present level.

In 1816 also, during the buiding of a new bridge, the "filth" which had again collected, was so far removed as to leave the pool nearly as it had been left after the more general cleansing of it, thirteen years previously. And now a lapse of barely twenty four years has again brought it to a state of exuberant filth!

The foregoing conclusions having been drawn, for the most part, from the records of the corporation, without either prejudice or interest, it would be unfair to disguise, that in consequence of some cannon shot—the effect of the last civil wars—having been found here in 1803, apparent reason is afforded for believing, that the basin was never cleansed before this period. But to say nothing about washing away the constantly recorded filth, by "turning any of the mud down the stream," the discovery of the shot proves too little and

too much for the lovers of the picturesque. It proves too little, because the shot were not found near the entrance of the stream ; and it proves too much, because their weight and impetus would, at once, cause them to sink deep in soft mud. And as they rebounded or were projected into it, almost two hundred years ago, an unceasing accumulation became gradually deposited over them to such depth, that the site might have been scoured, “from time to time,” in more ways than one, without disturbing them—the discovery in 1803 merely proving the extent of the labor. And further, as this point is much dwelt upon by some persons, it may not be an undue imitation of a certain popular authority to cast domestic evidence aside and go “abroad” for an example, where it can be answered for, that so long as twenty four years after the battle of Waterloo, a six pound shot was ploughed up in the field of battle ; from which it would be about as logical to conclude, that Waterloo had never been ploughed since 1815, as it is to conclude, that mud was never taken out of a pool in Lichfield, before the present century.

## OF STOW POOL.

This sheet of water having originally spread over a surface of two and twenty acres, measured within two acres of this extent, towards the commencement of the seventeenth century. Its present size, however, in consequence of drainage, is little more than seven acres. The morass, which increased here, was, at first, known as “Stow pool waste ground :” and it is not yet a hundred years, since it began to be reclaimed, partly by means of “soughs for draining land” and partly on a

plan of circular drainage, similar to that adopted elsewhere in 1730. The ditches made for the purpose unavoidably weakened the stream by dividing it; and therefore impurities being thrown down, as soon as space was afforded, the expanse of water became more than usually filthy. And *therefore* an action at law was threatened against the miller “for non-performance of the covenants in his lease,”—and so on, like the trouble of the other pools.

Dr. Jones’s testimony corroborates these statements. Writing in 1781, he observes, that “in the boggy vale, (of Stow) draining and an accession of soil have, of late years, made the ground, near the tree, a rich and firm loam, raised rather higher than the surface of the moor. \* \* All the banks of the brooks, which intersect the vale, are moor; in some places, improved by the industry of culture, in others, remaining dangerous quagmires, concealed by matted sedges, reeds, and other marshy plants.”

So late as 1812—13, this pool was extensively, though irregularly, cleansed; notwithstanding which, it now presents extensive filth!

## OF THE INFLUENCE OF NATURAL LAWS ON EXPANSES OF WATER.

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It bears upon the influence of natural laws to state, that at the time of the Roman invasion, it was recorded that England was almost overrun with woods. Now that such natural features of a country increase the fall of rain is a fact acknowledged by all authorities as capable of explanation ; while some of them, on this very account, denounce every kind of unnecessary plantation, and in particular that of trees of much exhaling surface, —such as poplars, alders, and willows, which experiments shew to be most productive of moisture in the atmosphere. Lakes and marshes also induce rain. So that, in early time, the district of Lichfield must have been, of necessity, a recipient of water from surrounding heights.

This district is a valley, which, abounding in springs, is hemmed in, north, west and south, by ridgelands copiously supplied with water ; while these again are flanked by more elevated grounds, on which Royal Forests have extended for miles together. The infiltration of surrounding springs, therefore, and rain water from such eminent conducting points of it, tended to the valley and there became embodied with the native springs. This embodied water would flow downwards, until it met with original or accidental interruption in

its course. And when the interruption formed part of the brim of a natural basin, in that basin a full supply of water would be detained, and so constitute a *lake* or pool; while the shallower sides and confined low lands near them, allowing overflow of water, would bring about, in combination with other causes, the production of marsh land. And in this manner, possibly, were effected those lakes and marshes, which gave origin to the unromantic and, of course, unpopular derivation of the name Lecetfelle,<sup>5</sup> Licetfeld, or Lichfield—a field of marshes.

The first way of here spelling the name of the town, at a date when the word was pronounced as *Laketfelle*, may be, at present, is that which occurs in the no mean authority of Domesday Book. The second is sanctioned by Bede, Alfred, and the Saxon Chronicle. And as for it and the existing title, both are perfectly synonymous and are partly explicable by dialects and peculiarity of spelling, in languages connected with modern English. Either name has a two-fold meaning—one which relates to a destroyed animal body; the other to land destroyed by inundation, or, as Ainsworth's phrase is, "ground drowned with water." Now while the first interpretation requires some of that learned ingenuity, which making words mean anything can

"view

In authors more than authors knew,"<sup>6</sup>

the latter meaning finds abundant corroboration in nature. Nay, even without an examination of nature, the very names of places in Lichfield and just bordering on the town support this assertion. There are here a Dam Street, a Wade Street, and a Frog-mere, that is Frog-pond, Street. A Steppingstones Lane, near Pone's

pond, has been recognised in one quarter, and a Swan Lane, near a Bishop's pool, in another. A Culstrobe myrsh has extended; part of which is yet called The Marsh, and which leads, on a level line, to a Swinfen and a Fullfen, a Freeford and a Dernford, a Freeford marsh and a Whittington marsh. A marshy Littleworth is presented east and a Pipe marsh west. *Lichfield* until lately had its *Merelich* Well and even wells in its streets, as St. Mariwell, &c. A Red-loch, or lake, has obtained near the town; and pools, ponds, moats, ditches and water-courses are spoken of in and beside a Bishop's marish, which immediately skirted it.

Nor is the enclosing country less distinguished by name for watered and wooded heights—the immediate borders of an amphitheatre being Stow Hill, Quarry Hill, Burwè or Borowcop, Berry Hill, *Knoll* or Knowl Hill, Offlow, Femley Hill, Harehurst Hill, Aldershaw, Pipe Hill, Woodhouses, Maplehayes, The Abbenalls, *Lyncroft*, *Elmhurst*, and a ridge-land immediately north of Stow. From some of which the conduits of the town are supplied.

Now expanses of water in the same stream participate in a share of filling up material, in proportion to situation—the higher always saving, or screening, the lower expanses. And natural laws, which regulate both inanimate and vital matter, combine as never-ending means to produce a diminution in the capacity of any lake-basin whatever, the most remarkable being those, which bring about accumulations of what are called ALLUVIAL DEPOSIT and VEGETABLE MOULD.

The former—which as applied to a marsh, ought rather to be called *eluvial*—means an earth or disintegrated matter, transported by water from one place to another,

and there deposited ; the latter is a soil, which results from vegetable decomposition.

Various impurities are found in all waters. And those which are not dissolved are held suspended by the force, or **CARRYING POWER**, of the stream, just as mud may be held suspended in a vessel of water by shaking it. So that if a narrow stream and an expanse be supplied from the same source, impurities will be thrown down soonest in the expanse ; because of want of motion in it. And where the carrying power first fails, there—other things being equal—the burden of deposit will occur ; the water thus becoming purified more and more as it descends. During a flood, this may be especially witnessed ; for at such time, the head of the uppermost in a chain of pools, supplied from the same source, will be seen yellow and muddy, while the water discharged by the inferior one is perfectly clear.

**OBSTRUCTIONS TO THE FLOW OF WATER** also cause deposits from it ; because they suddenly stop and detain the impurities, which an unopposed stream would have carried on : and thus, by means of never-ending deposits, banks result. On these deposits, at moderate depth, certain water plants will grow and then decay, and hereby add to the mass previously formed from other causes—the combined forces of inanimate and vital matter, by such means, approximating the surface, in constant accumulation, until they constitute an exposed bed to which floating and wind-carried seeds of new species are attracted. These seeds then assist the former deposits ; they grow there and there decay. And so throughout all seasons—in the mud-bearing flood of winter, the vegetation of spring, the luxuriant

verdure of summer and the decay of this verdure, in autumn—unopposable natural laws progress, until at last they convert the once expanded pool into a green field and a rivulet.

## OF THE EFFECTS OF CULTIVATION ON NATURAL LAWS.

As regards this, in England, it appears that so much as a third of the country has been enclosed, since the commencement of the last century ; in consequence of which, ancient woods having been cut down and lands drained, the fall of rain has been lessened and the supply of lakes diminished. Now land and, of course, lake-basins in it, may be drained, or made dry, either by direct or indirect means.

Indirect drainage is effected by THE INTERCEPTION OF SPRINGS—a method, whose vast and beneficial influences at Fisherwick and Freeford, being particularly described in Pitt's Agricultural Survey of Staffordshire, is here noticed only, because an interference of the kind has already been commenced near the Lichfield pools. The site alluded to is a part of Sandford valley ; and the influence on Sandford pool is visible. The lower waters, however, being fed from other sources have not yet exhibited the effect of this ; but as drainage extends north and west, so these waters—if not immediately discharged—must become diminished in supply, until the effect on them is rendered equally apparent.

To enter into full explanation of **THE INFLUENCE OF THE POOLS IN AN AGRICULTURAL POINT OF VIEW** would be only to reiterate the substance of numerous notices in all the agricultural journals of the day. But it may be mentioned, that a line extending northwards beyond the ancient Lanmas land yet furnishes very coarse grass, notwithstanding vast expenses and labor in “cleansing the former drains, gutters, and trenches” there, more than a hundred years ago ; and since then in a variety of soughing and in deepening, widening and straightening the brooks and adding large quantities of sand-soil and lime ; while fields in the south west line are so injured by under water, that they shake, when even men walk over them, just as undrained peat would shake in the especial county of bogs. But the final drainage of a single pool would afford immediate opportunity of metamorphosing both these tracts into land covered with the richest verdure !

An example, which may help to illustrate this, occurred only a very few years ago, in Lichfield marsh, where, before the cutting of the Wyrley canal, a pond obtained. But as soon as the canal was made, this pond, as well as the adjoining land, became speedily drained. And more remarkable, but distant, examples of the kind might be cited.

**THE INFLUENCE OF PUBLIC SEWERS** on recipient expanses of water is another subject unavoidably noticed ; because such have been charged as the exclusive causes of the filling up of the Minster pool.

It is granted that the influence of sewers is so reasonably dreaded in some places, that especial provisions have been advisedly constructed there, for the purpose of conveying their contents beyond the basins of adjoin-

ing harbours; as at Kingstown, &c. But to accuse those of a little town of having caused the “filth” in a part of the pool above them, is literally as bad as the wolf’s charge against the lamb in the fable—unless indeed the received definition of a sewer be meant to apply to the pool itself.

## ANALAGOUS EXAMPLES

OF THE CONVERSION OF

## WATERY DISTRICTS INTO LAND.

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Such examples are found close to the calmest and the boldest waters. Near home, for instance, in lines of meadow land, in the immediate neighbourhood of many bridges throughout the county; while, on a grander scale, the not distant localities of ancient sea-ports may be viewed effectually blocked up by nature, after immense expenses to preserve them. Nor are instances wanted of the conversion of ponds and ditches into profitable and ornamental grounds; as may be learned from authentic accounts of the Fishpond Gardens in Nottingham, Stephen's Green and Sackville Street, in Dublin, &c.

Amongst foreign examples, the Lake of Geneva is remarkable. This lake is from eight to ten miles wide and, in places, a hundred feet deep. It consists of beautifully clear water in every point but one; and yet natural causes are rapidly filling it up. Moreover the situation, where the burden of deposit is now thrown down in it, will help to explain how superior expanses, by arresting the *detritus*—or water-worn material transported from place to place—save, or screen, inferior ones. Above the Lake of Geneva, known expanses, which once shared in the deposits of the Rhone, have,

in length of time, been converted into cultivated land ; so that, as this land now constitutes a defined channel instead of a low expanse, the filling-up material of the river is carried directly to the lake, and there deposited. And in like manner, Mr. Lyell explains, that if the Canadian lakes become, at any time, saturated with solid matter, copious sediments would then be transported some miles farther on to the Gulph of St. Lawrence, which yet continues free from the reach of their injurious influence—the water, which it receives, having been purified by so many past deposits in the superior lakes.

On first reading explanations of this kind, they may, perhaps appear only modern fancies. Instead of which similar examples have ever furnished material for observation and have been noticed from the most ancient times.

For instance, as to opportunity for observation, an author, who flourished almost a thousand years before the Christian era—Homer, so faithful in description of nature, guides his readers through plains and by rivers known to him. But scholiasts have totally differed in opinion about them ; and an intelligent traveller has cautiously arrived at the conclusion, that “it is scarcely possible to reconcile the existing features of the plain of Troy with the poet’s topography.” And why is this ? Evidently because the mud-bearing streams, of which Homer spoke, have by a continued succession of deposits, not only altered the plain through which they flow, but even their own courses.

Again Herodotus, 2,300 years ago, recorded that before his day, “the whole of Egypt, except the province of Thebes, was *one extended marsh.*” And the alterations in the features of this country have been so

remarkable as to become a point of notice, amongst even sacred historians; one of whom writes, in effect, that “*The fishers may mourn, and they, who cast angle into the brook may lament; but the purposes MUST be broken of those, who make sluices and ponds for fish.*”

It is now two thousand years, since another district—the Palus Mæotis, excited not only record but theory. Having detailed military proceedings near it, Polybius digresses, at length, to theorize about the locality, observing, in part, that “There are two causes of change in it—the first, that when streams fall into a confined basin, their water must continue to rise, until surpassing the limited bounds, it spreads over a more extended space; but if there be then any solitary passage, or outlet, all that is superfluous will be discharged that way. The other cause is the matter, which the streams bring down; for hence banks are formed. \* \* *Causes founded upon fact and nature, which afford indeed, in all inquiries, the surest and most convincing evidence.* \* \* *In the course of time then, these basins must be filled up with solid matter; for since their limits are circumscribed, but time is infinite, any such accession, how small soever, if it be constant only and never discontinued, must, in the end, be sufficient for this purpose.* \* \* \* *For I speak not of it as an event, that is barely probable; but as one that cannot fail to happen.*”

Unconscious of modern theory, another rigid investigator of facts observed, some years ago, in speaking of the branches of the Nile, that “the lake of Mareotis which formed an expanse of 30 miles, in the time of Strabo, (is) now filled up, nearly to the level of the country; and the lakes of Canopus (are) much in the same state; whilst that of Butos \* remains, although

it be much smaller than that of Menzala, which is the furthest removed from the general line of the course of the Nile. \* \* *History furnishes several examples of the filling up of lakes by depositions.* The Tigris and the Euphrates, in the time of Nearchus, formed an extensive lake near the sea. That lake is no more to be found. The upper part of the Paludes, into which the Pallacopa led, below Babylon, now forms a plain, although it retains its former name of *Bahr Nedjuff*; that is the sea, or lake, of Nedjuff. It has also been remarked, that the site of the lake Mareotis still bears the name of *Baheira*, or the lake.”<sup>8</sup>

But to continue thus to quote and comment upon examples of

“The barren marsh, whose cultivated plain,  
Now gives the neighbouring towns its various grain.”

would be to compile that great evil—a large book ; so numerous are the instances of ancient metamorphose.

Omitting further especial example therefore, it will be found, that THE LAWS OF CHANGE were also noted, many centuries ago. It was in the very commencement of the Christian era, for instance, when Celsus, who lived in a country celebrated for geological action, wrote, that of eight kinds of water, which he names, that from the marsh, or palustrine, district is the most loaded with foreign matter—“*gravissima ex palude.*” And five hundred years even before his day, Pythagoras—almost in the very language of modern geology—traced nearly every change, on the face of the earth, to the unceasing operation of aqueous and igneous causes. “All things” says the sage, as Ovid<sup>10</sup> reports, “result from fire and water ; all lapse into them again. From (the deposits of) gathered waters

is the dry land made ; nothing remaining long under the same form. The very elements, as we call them, are not permanent ; and they not only suffer change themselves, but by them the condition as well as the fortune of districts is reversed. Banks are worn down by streams, and mounds become piled from *eluvies* ; and this often in so brief a space of time, that within my own memory, has dry land resulted from (the deposits of) water. That which was once a plain, the water-course channels into a valley ; and the overflow of thirsty sands converts them ( by means of vegetable growth) into a morass.”

The foregoing reports of ancient authors are given in condensed form and free translation, many intermediate observations being omitted, to embody those alone, which most directly bear upon the present subject. But sufficient are they to shew, that a knowledge of the filling up of lakes and the conversion into land of the detritus, which is carried to them by water, is an opinion of such remote antiquity, that if any credit be allowed to the harmony of the most ancient and the most modern observations, it is impossible not to conclude, that *the Lichfield pools, without vast human labor, must rapidly disappear, by the rigid operation of natural laws.*

## LICHFIELD MEDICALLY CONSIDERED.

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An inquiry into the influence of torpid waters is, in part, so essentially medical, that it would be unreasonable to overlook medical views. And first, as to THE ATMOSPHERE of a district, it is undeniable, that it exercises vast influence over the inhabitants; while itself is influenced by the characteristic features of the country. A fact so long established, that Pythagoras having spoken, as just noted, adds “Thus matter suffers from the action of water; so also, more miraculously suffers mind. *Who has not heard of the Ethiopian pools, being the cause either of fury or drowsiness?*”—peculiarities, which evidently resulted from an atmosphere contaminated by miasmatic exhalations. To illustrate this, it may be observed, that a scientific chemist, having lately collected a quantity of air, from a tainted atmosphere, found it to contain much uncombined *hydrogen* and *carburetted hydrogen* gases; and in experiments with this air on dogs, produced such sedative effects as, in some instances, amounted to “an incapability of exertion and comatose torpor.”

But it may be not unfairly asked—*Have any such causes been ever found in the atmosphere of Lichfield?*

They have. Dr. Jones describing an unusually large willow, in Lichfield, states, that “As great size is

owing to situation, we may perhaps find in the spot allotted to this tree, much of the cause of its extraordinary growth. \* \* \* Wet soils are the natural situations of willows; and marshy places, according to Dr. Priestly, are more peculiarly their choice. Such places abound with inflammable air"—the former name for *hydrogen*—"which he supposes to be the food of the willow. I collected large quantities a few paces from the tree; and if plenty and vicinity facilitated the increase, it is no wonder that this willow should attain so distinguished a size!"

Again,—Is there a member of animated creation, who does not feel the depressing influence of fogs? But *fogs abound in Lichfield*. Thus to speak here of only one season; in the autumn of 1838, at hours when sunshine, the neighbouring heights—sometimes with slight, sometimes without any intervening mist—Lichfield was continually mantled in gloom. And of this, at least one very remarkable example occurred; the following account of which may, of course, in a weather-observing country, be tested by town and country registers of the weather.

On Sunday, the 11th of November, in the year just named, a chilling, dense and particularly damp fog was experienced in Lichfield, immediately before and about noon. At which precisely same date, the suburbs of the town presented only a comparative haziness of atmosphere; while on Whittington Heath, the air was as clear, the sun as bright and the sky as blue, as they could be expected in a frosty November! Viewed, however, from the summit of the heath, the site of Lichfield appeared—literally speaking—as if palled in the gloom of night, a clear, blue sky surmounting the circumscribed darkness. This limited fog extended

only a short distance east of Littleworth ; from which locality, moreover, an E. N. E. wind bore away the smoke and exhalations of the town. But it was felt. And darkness that may be felt, has, on more than one occasion, foreboded punishment.

## OF THE VALUE OF LIFE IN LICHFIELD.

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A boast is continually heard of persons here enjoying long life. But they, who so boast, should remember, that although it is providentially ordained, that human beings may become habituated to atmospheric as well as other poisons, this is not a shadow of reason for continuing the sources of poison. Another fact is that miasmatic exhalations—when not excessive—may be swept away by breezes, from surrounding heights, and so become diluted and decomposed in the general atmosphere. And yet another is, that most of the individuals, who live so long, as it is called, are not natives of the town, but persons on whose frames the quietness of the place makes no injurious demand—for employments and the nature of them have vast influence over the statistics of mortality.

The value of life differs, in different places, so much as thirty years; and it *ought* to be much higher in any small country town than a large one. That laborious and scientific investigator—Mr. Farr, although he confesses with regret, that “the laws of vitality are yet but imperfectly explored,” has been enabled to deduce from the late national registers, what amounts to these important conclusions.

*First* ; that out of a population of about seven millions, equally divided between certain agricultural

districts and large towns, the total amount of mortality, under ordinary circumstances, is more than a third greater in the large towns, than in the agricultural districts. *Secondly* ; that in some parts even of the very same town—as Whitechapel, St. Giles's and Shoreditch, in London—whence atmospheric impurities are not adequately removed by general ventilation, the usual mortality is, to that in the best situated parts, higher than this. While, *thirdly*, during a visitation of epidemic disease, it is higher still.

It is, in fact, demonstrable that if due attention were given to medical police, the average duration of human life would be considerably augmented, because of conformity with, instead of opposition to, natural laws. For it is an oversight of facts and a perversion of terms to assert that the days of our years are limited, by divine ordinance, to three score years and ten—the very name of the Psalm, in which the allusion occurs, contradicts such an assertion.

Accurate calculations<sup>12</sup> shew, that the mean duration of life, throughout England, is vastly improved, of late. In Ireland, on the contrary, poverty, hunger and fever continue to send millions to an early grave. Yet in this country, numerous instances are on record of peasants having attained ages of upwards of a hundred ! So that solitary examples of the kind must go for nothing ; and regard being had to the mass of population, investigation will prove, that the effects of early cachectic disease overbalance the instances of longevity in Lichfield.

## OF ENDEMIC DISEASE.

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Since almost any statement may be perverted, without explanation, it is acknowledged, in defence of the present statements, that bold lakes are not sources of infection. Expanses of water generate and foster disease, in proportion to their sluggishness and want of cleanliness—a fact, which even tourists have observed, unbiassed by theory.

To shew that the neglected features of a country, similar to those of Lichfield, may cause endemic disease, innumerable proofs might be cited, without a possibility, however, of explaining how or why. For some such causes, although uniform in effect and recognised by the sense of smell, &c., at present, defy all human scrutiny. Insomuch that “we are no longer disposed to wonder that doctors should so often have differed; but rather to express our amazement, that they should ever have agreed.”

Now as to local evidence, it appears, that the injurious influence, on public health, of impure expanses of water, in the commencement of the present century, is by some persons maintained and by some denied. But certain is it, that fever prevailed here then; and equally certain is it, that, at the same period, there was one public “subscription opened, for defraying the expenses of cleaning the Minster pool” and another for the relief of those persons, who—in conformity with

a universal law—suffered most from fever. Again in 1812—13, some fever prevailed, and there was another “subscription to the poor.” And, let theory pass for what it may, Stow pool was extensively cleansed, at this season.

Nor are these accounts unsupported by the statistics of mortality in the parish registers ; although to such authority it is unnecessary to appeal ; since it is evident, that while general health may be depressed, so far as to incapacitate a laboring population from earning a livelihood for a time, the amount of mortality may not be much increased ; as an endemic, which happened here, in 1833—4, remarkably exemplified.

This disease was supposed to have originated in consequence of the pools ; because, in the autumn of 1833, they emitted a more than usually offensive odor. Now the type of the disease was that of fever ; but it was so mild compared with fevers, which the writer had been accustomed to witness, that he adopted for it the name *Febrility*, as if equivalent to the Latin *Febricula*, a slight fever. All the sufferers, however, were confined to bed for a longer or a shorter time ; and out of a hundred and fifty two cases of it, only two deaths occurred—and these from old diseases excited to increased action. Whereas in the same number of cases of the endemic fever of unfortunate Ireland, the number of deaths would have amounted to twelve, thirteen, or perhaps even fourteen, depending on various circumstances.

Although this disease was almost exclusively confined to the poor and was scarcely known to the public, it was nevertheless an indication of that influence, which, in another season, may involve all classes in one common calamity. For the escape from evil, in

consequence of the mildness of a past endemic, no more argues the future security of any class, than does the present escape of a man prove his, while, unconscious of the explosive forces discovered by modern chemistry, he feels no risk before the gun without a flint. In the proximity of latent causes of evil, many populations have escaped an outbreak of violent disease, for generations. Yet so situated, they may deeply and unceasingly suffer, by their own neglect, from a worse than infectious malady ; from that varied taint of constitution, called Scrophula. *And if Scrophula prevail not endemically in Lichfield ; and if Lichfield might not be, at once, converted into an ornamented, sheltered and dry garden of health, then let all the assertions of this essay go for nothing.*

## OF EPIDEMIC DISEASE.

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During the sixteenth and seventeenth centuries, five if not six plagues raged in Lichfield ! It is true, that at this date, England at large suffered from the same scourge ; but—the whole country considered—not anything like to such proportionate extent as this small district.

For instance, in London, in 1593—4, the mortality was but a small fraction of the entire population. And in the Great Plague, although it lasted fourteen months, the highest amount of deaths stated is 100,000, which number adds nearly 32,000 for omissions in the Bills of mortality. The population of London, at the commencement of the pestilence, was at least 600,000—some accounts say much more. In consequence, however, of the numerous parties, who ran away from the scene of panic, the mortality of the exposed population may be set down as 25 per cent. But in Lichfield, in 1593—4, at least 51 per cent., and in 1645—6 at least 32 per cent., perished from plague !

Such things have been called, in a most wicked sense of idle resignation, Visitations of Providence. But miracles excepted—though modern times have nothing to do with miracles—the very highest practical authorities, on questions of infection, have expressed themselves as convinced, as they have felt of an existence, that no pestilential disease has ever yet origi-

nated, in any part of the world, without an immediately previous violation of natural law there. And when such disease has spread to other regions as an epidemic, its ravages have been—allowing for the influences of climate, &c.—invariably greatest in the localities visited, which have been least defended by medical police.

Thus, at periods, when England suffered from plague, the country was altogether less generally drained than it is, at present ; scientific draining of land, however ancient the practice, was almost unknown here. Streets were narrow and crowded. So that neither in town nor country, did the earth feel the genial influence of the sun ; and consequently the atmosphere, which God appointed to transmit, without absorbing any of that influence, did not receive an adequate measure of it—as providentially ordained—from the earth. But from the earth, instead of the genial influence of the sun, it absorbed pestiferous exhalations and gases ; the sun itself, without which this world would be untenanted, being converted, by human carelessness, into the very means of exciting them. Unventilated houses had but few domestic comforts ; coal had been voted a nuisance ; moats and ditches prevailed ; public sewers were as justly called sinks, as Johnson has defined the word ; cess-pools and dung-hills were cherished in towns, for the sake of revenue ; and, in short, the common principles of medical police were either unknown or laughed at.

Now to apply the statement of these facts to Lichfield, the town, during the visitations of plague, was eminently characterised by “filthy” pools and choked up ditches. It presented air-polluting marshes and rush-fields ; its “common muck-hill” was so ample as

to furnish a rent equal to that of three acres of good land, at this time ; but its “common channels” were so imperfect, that “the water frequently stagnated in them.”<sup>13</sup> The general consequences, medically considered, were what have just been alluded to.

For precise views of epidemic disease, in Lichfield, adequate—because not sufficiently pointed—statistics are wanted. But from some few statistics of high authority, quoted in Harwood’s History, the following table has been deduced :—

# STATISTICS OF THE PLAGUE IN LICHFIELD, IN 1645—6.

## Peculiarity of Situation.

Chiefly on ridge land and all well ventilated, except the Vicarage. The Close Ditch was drained in 1643, and part of Beacon Street burned down, during the plague.

Defended by domestic comforts.

Exposed to external ventilation, except one side of Butcher Row; but partly adjoining the most infected districts, and containing a common channel, with stagnant water in it.

The extreme parts, small houses close to the pools. Bird Street, in the centre, being so narrow, that it has since been widened by Act of Parliament.

Partly intersected by the Common Ditch and C. M. T. parallel to, but under the level of which were Frog Lane and Wade Street, while John Street was hemmed in between these and the Bishop's marsh.

<i>Value.</i> £. s. d.	<i>Deaths.</i>	<i>Per Cent</i>
8 0 0	0	0
4 18 4	38	18
4 14 8	200	36
4 2 7	262	41
3 13 7	321	47

### North Town.

Beacon Street  
Gaia Lane  
Shaw Lane  
The Close

### South Town.

Market Street

Dam Street  
Butcher Row  
Tamworth Street  
Boar Street  
The Women's Chyping

Stow Street  
Lombard Street  
Bird Street  
Sandford Street

Green Hill  
George Lane  
St. John Street  
Frog Lane  
Wade Street

NOTE.---The column headed *Value* means the value of the districts in task and chief-rent; that headed *Deaths*, enumerates the exactly proportionate number of deaths from plague; the third column gives the mortality *per Cent*, of the population.

## ANALAGOUS MEDICAL EXAMPLES.

Of such, one of the latest is that of an endemic fever, incorrectly called Pali the Plague; Dr. Ranken's account of which is very briefly embodied in the following notice of Pali; a parallel notice of Lichfield is combined with it.

PALI DISTRICT *is intersected by numerous streams and characterised by clayey soil, which, in the neglect of agriculture, abounds in marshes. Within the last six years, endemic and epidemic diseases, of most destructive character, have raged here; one of them being of such malignity, that about a QUARTER of the population perished of it!*

THE DISTRICT OF LICHFIELD, intersected by numerous brooks, contains much clay, and was, at one time, an extensive field of marshes. Epidemic diseases here, at this period, were of such peculiar malignity, that *half* the population of the town perished in a single visitation of the kind!

*One small portion of THE DISTRICT OF PALI, which suffered most severely, is a village situated low, with respect to places in its immediate neighbourhood. The poorer abodes of this village, are utterly destitute of architectural plan; they were vilely constructed, ill ventilated and crowded.*

THE DISTRICT OF LICHFIELD is a valley, many of its poorer abodes being ill-ventilated and crowded.

*The Indian village has, at one end of it, A HALF DRIED TANK. And general ventilation—so necessary, under such circumstances—is hindered by walls and a grove, which some of the natives consider ornamental ! To the condition of the poorer abodes and the tank, the eye and the nose, at times, bear ample testimony.*

Lichfield presents two reservoirs, which much longer neglect must cause to rival the Pali tank. And general ventilation—so necessary under such circumstances—is impeded by a plantation of worthless, damp-producing trees &c.

Another parallel example is that of Jessore, where the eruption of the Blue Cholera took place. Before its unfortunate notority, Jessore was not only remarkable for swamps, ponds and jungles without, but also for want of cleanliness within the town. The public toleration of which circumstances continued, for ages, with comparative impunity. At length, however, the ponds and jungles became choked up, with decayed and decaying vegetable matter, and Pestilential Cholera was ushered into the world, as the consequence !

Again, the peculiar region of Plague has been ever noted for not dissimilar features ; and during its calamity, “the reeds and flags and paper-reeds and everything sown by the brooks have lain withered and cast aside”—a perfect picture of extensive vegetable decomposition. And the pools of Jerusalem, and “the miry places and the marshes thereof,” and the ravages, amongst the Jews, of “the pestilence that walketh in darkness, and the sickness that destroyeth in the noon-day,” are equally familiar examples.

# SUMMARY

OF

## THE FOREGOING CONSIDERATIONS.

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As detailed reasons may pass unexamined, the gist of all the past observations may be considered this. *Geologically*, to shew the impossibility of preserving the Lichfield pools to an indefinite period of time ; *medically*, to shew the risk of preserving them, in their present state, to a very limited period ; and *popularly* to shew the impolicy of preserving them at all.

Now as from this it results, that the advocate of such opinions would, at once, drain the pools, it may not unfairly be inquired, by their admirers, what he would do with their sites ? And how repay the corporation for loss of rent, the public for loss of accommodation and the town for loss of ornament ? Questions, however, which if publicly heard, must occupy the attention of many parties. But he who has volunteered remarks of condemnation, is perhaps bound to attempt some explanation of these subjects.

## THE LICHFIELD POOLS

CONSIDERED AS SOURCES OF

WEALTH, ACCOMMODATION & ORNAMENT.

Of the pools as sources of wealth, nothing—absolutely nothing—can be deduced, from the experience of the new corporation, this party having dropped in, not only for the highest, but the most secure rents. For not one single instance appears of any tenant affording satisfaction, equal to that which has been afforded by the present tenant of the upper mill—the rent of which is very far the highest ever received.

To estimate net rent, many things must be considered ; such as building repairs and cleansings of the pools ; a variety of mill gear ; losses by death or failure of tenants ; loss of property by encroachment ; outlays in embankments and other schemes to drain the marsh lands, which have resulted from the pools ; the cost of boats, nets and stock fish ; posts and night guards, to hinder poaching ; islands in the Minster and Stow pools, walls, walks, grates, sluices, arches, flood-gates, and various items included in the general accounts of the Bailiffs and in those of smiths, carpenters and masons, or under the comprehensive term of “work done.”

Before canvassing means of re-payment, therefore, if minor expenses be altogether overlooked, it is only fair to take a view of such leading transactions as will, in general terms, point out what is to be repaid.

## OF THE VALUE OF THE MILLS AND POOLS.

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One of the earliest entries in the remaining Order Books of the corporation is, that a sum of £20 be allowed towards certain *extraordinary repairs* of one of the mills.

The leases having expired in 1693, both mills, together with the Bishop's mill-croft, by the malt mill, were let to yearly tenants, for £80 a year; the covenant with these parties being, that they were to have the repairs executed and *deduct the expenses out of the rent*. And during the following winter, one of the numerous incidental expenses occurred, in consequence of *injury to the flood-gates*.

This same date, brought about a cost of and allowance for a *cleansing of the pools*, the corporation agreeing, if the tenants of the mills should lose "any time considerable," in such cleansing, that an adequate fine should be allowed them, or an allowance be made for the loss.

In the following summer, *renewed provisions* were adopted for this and new ones made for some late *work done at Stow pool*—all the expenses being stopped out of the rents of the mills.

During the second cleansing of the upper mill pond, in two successive years, the mill lacked water power—thus shewing, by the way, the extent of the work—and instead of allowance in money, *the landlords*

*hired horses "for carrying on the mill grists and services answerable, until the mills (could) be got to act" by water power.* And then, by way of bringing more grist to the mill, so as in some measure, to cover these expenses, they absolutely tried to compel all the inhabitants of the town to deal with them! For which purpose, they took law opinion to ascertain, whether persons could not be prevented grinding malt in their own houses. And at all events, to insure the custom of tenants of the corporate property, they ordered a covenant to be inserted in a lease of this date, that the tenant should grind his corn and malt at the mills belonging to the Lords of this Manor and that no person hereafter may have a lease without this covenant. Which order was further acted on in 1702 and at other dates.

In 1695, the imperfectly repaired mills, the millcroft and a waste were offered, on a twenty one years lease, for the rent lately received; but the offer was not accepted, and the buildings were, therefore, let on other terms, without the land; and to this effect.

"In regard," say the municipal authorities, that "the lessees are to be put to a *great deal of (expense in) repairs*, though they are to be reimbursed, at the end, for the same, they shall, to encourage them, enjoy the mills for two years gratis; and afterwards, if the lessees desire it, the corporation will make them a lease for the remainder of the twenty one years," on very much reduced terms. And moreover, on the subsequent remonstrance of the tenants, the Bailiffs promised to obtain the land for them rent free—a promise immediately ratified by those, who were "*willing to forred all things which the Bailiffs had agreed to.*"

Even this, however, did not end their losses, at the

time ; for a former tenant, having been allowed to give up his holding in debt, to the amount of £57. 6s. 8d., it was agreed, “ that in respect of *the loss (of money) which he had sustained by the mill*, the corporation were content to remit him £20 ; and also to allow £7. 6s. 8d. for *loss of time the mill stood idle*” ( during the cleansing of the pool, in 1693—4.)

Thus valuable were the buildings, at this date ; while as regards the water, *the fishing of the Nether and Minster pools was let for only 30s. a year*, on proviso of the tenant keeping them clean !

The lessees of the mill were now three in number ; but only one of them remained in occupation, by 1709. In which year *the flood-gates being quite out of order*, a bargain was made with this tenant, that if he repaired them substantially, the landlords would allow one half of the charges of the repairs, notwithstanding proviso by covenant and lease to repair the same, at his own charge.

This tenant and the others removed having, in 1715, assigned their then short interest to a new party, the corporation interfered to prevent the assignment being carried into effect ; or, as they word it, they would “ dispute with that part of the covenant in the lease, ( granted to persons named ) whereby they were not to assign without consent. And seeing that they have assigned,” &c., it was ordered, that judges of such matters “ do view the state and condition of *the repairs of the mills* ( to ascertain, whether they be substantial, or ) whether the mills are now in a better condition, than they were when the present lessee entered ; and what ought to be allowed for the wear and running of the stones and running gear and implements for the two years yet in being in his lease.”

In 1717 *the fishing of all the pools was let for twenty one years, for a fine of £20 and a rent of six-pence a year*, on condition and covenant of the tenant's helping to keep them clean. Now this fine and rent were barely equivalent to the last rent of the two worse pools; for the sum sunk, at 4 per cent., would produce only 30s. a year, for twenty one years. So that as the fishing of clean waters would have been worth as many pounds a year, and if the trouble and expense entailed both on the miller and the corporation be taken into account, some notion may be obtained of the cost of preserving expanses of water in a marsh district. Drive Nature out as you will, she WILL come back. And in proof of this, the united labours and expenses of a host of millers, aldermen, fishermen and marsh-men, were unable to preserve the Nether pool, until the expiration of this fishing tenant's lease !

At the same date with that of his interest, a twenty one year's lease was also granted of both the mills and the four acre mill-croft, to a new tenant, at the like *reduced rent* agreed to 1696. This person also held part of the Town Marsh, called "the moggs above the bridge;" but dying eight years before the expiration of the leases, his widow's surrender of them was accepted; and it was agreed, that *all rent due for Stow mill be abated, she either delivering up the "intrails and gearing of the mault mills, now valued at £97, or paying the sum of £97 for them."* In which last case, she obtained permission to sell these inside appendages, for as much as she could.

In 1730, *the bridges at Stow were repaired*, at two-fold expense. That is, the wood work was first repaired, and then new arches were turned over the streams.

In this year also, a grand scheme in the Town Marsh was brought out, at no small expense, for the purpose of annihilating one part of the old Middle pool and renovating the other, by a removal of its "filth" to the part drained.

This serio-comic Pantomime enacted under the superintendence of no less than half a dozen managers named, the corporation, wearied of reimbursing tenants at valuation of their building repairs and "work done," offered a lease of the malt mill and Minster pool and the streams thereto belonging, for twenty one years, *at the yearly rent—of £12!*

Yet strange as it may appear, on reading thus far, the offer was not accepted; and why? *The mill was out of repair*; and it was designed, that the tenant should erect, make and keep up the required mill buildings; and find and provide all wheels, mill-stones and materials for the same; and leave such in good repair and working order, at the end of the said term; and also *clean the Minster pool*, as required; and make it contain and hold a good and sufficient body of water, at its present elevation; and repair the mill-dam, grates and head of the pool, as there should be occasion.

The tempting offer, therefore, of renting the upper mill and pool, for £1 a month, being rejected, other conditions were substituted by the corporation and agreed to by a person named. This person was to rent the property for thirty one years, after the succeeding Lady-day, by which time, the landlords were to have the mill ready for him. His rent was, at first, named only £22 a year; and subsequently, in consideration of his putting and placing down grates, it was further reduced to £21. In consideration also, not only of this reduced rent, but of his holding the mills two years and

a half, rent free, and of a sum of £40 advanced to him—that is for £92. 10s. 0d. paid and allowed, besides the allowance for the grates—he was to convert *part* of the new buildings into a dwelling house, to erect mill-stones and wheels, together with the apparatus thereto belonging, and to keep the pool free, beside the town gardens—*whence some encroachments had already been effected* ; as further noticed on page 55.

In 1733—4, allowances were made in form of *reduced rent*, for improving the Lammas land and Pipe marsh, by “well and sufficiently” (!) draining it, and cleansing the former drains, gutters and trenches, &c.

In 1735, *arrears of rent* were due for Stow mill ; out of which, the landlords were obliged to allow £53, in lieu of things surrendered.

In 1736, *Stow mill was again out of repair*. Preferring now, as with regard to part of the upper mill in 1731, to pay for repairs by allowance in rent, rather than by direct outlay, the corporation offered a lease of Stow mill and pool, for thirty one years, at *a rent of £5 a year*, for the first six years, and of £30 a year for the remainder of the term.

This offer, however, was also refused ; because it was proposed, that the lessee should *new build the mill* and keep it, the dam, bridges and flood-gates in repair ; the immediate outlay required on the buildings being, by valuation, £350, exclusive of the old building materials. But everybody knows that valuations are mostly under the mark.

Stow mill, therefore, being rebuilt on other conditions, was let to a new party ; but with no better success than of old ; for by 1747, it became necessary to threaten *proceedings for recovery of rent due*. The new tenant, however, died before the landlords passing

to such an extremity ; and then, glad to get possession of the mill, on any terms, they accepted his widow's *surrender of the lease*, in 1752.

But as misfortunes come seldom alone, a succeeding tenant died in debt also ; and the landlords were obliged to *bring an action against his executors*.

For reasons before stated, it is more than probable, that, *towards the middle of the last century the cleanings of the Minster pool entailed much expense*—though it would be very troublesome to prove the exact amount.

And during this same and a later period, various losses, both of toil and money, were experienced at Stow, partly in consequence of *reclaiming the wastes*, by means both of surface and circular drainage, and a considerable accession of soil ; and partly in consequence of *an extensive bankslip*, at the breaking up of a severe frost.

This latter fact is handed down by tradition ; and it is probable, that some *injury to the bridges*, alluded to in the corporate records, happened in consequence of it.

In 1764, the rent of the upper mill was thus regulated. The tenant was, *for the first three years, merely to pay an annual acknowledgment of 12 pence !* And for the succeeding eighteen years merely to pay the same rent as the last tenant—that is £22 a year, or about half the amount paid seventy years before ! Under these conditions, he agreed to *the building repairs*, to erect a new wheel, put down what fresh mill-stones he had occasion for, and bear all other expenses of the kind.

In 1768, came the expense of *adding five feet to the breadth of Langton's Causey, for its original length of more than 120 yards*. But this addition lasted only

forty eight years ; because, in 1816, *the new bridge* was built, under the expense of two Acts of Parliament. And though the corporation merely subscribed £50, on this occasion, for *the cleansing of the Minster pool*, the public at large were well taxed and tolled for it.

The corporate records for 1770 and 1771, afford evidence of loss of valuable sites, in consequence of *encroachments on the pools*, near the lane. For several trespassers having then enjoyed their encroachments, above twenty years, claimed them as their own property and refused to pay amercement. (See pages 14 and 53.)

In this latter year also, were incurred *the expenses of making the walk from Dam Street to Bird Street, and for removing the obstructions, at the garden ends.*

In 1773, came the cost and toil of *The Serpentine, and consequent loss of town land !*

In 1773 and 1776, *Stow mill and its flood-gates were again repaired*, the bargain with the tenants being more than usually guarded. It was, that, under peculiar tenure, they were to execute the repairs, at unlimited expense, within nine months ; and after seven years trial, the works being proved substantial, the corporation were to allow one third part of so much money as had been expended, during the first nine months. And they did allow it.

1777 and 1778, the expenses of *cleansing Stow pool* were so considerable, that four persons were appointed, in this latter year, “to be a committee to inspect that it be well done.” The whole expense is not named ; but only to “finish” the removal of the weeds and water plants and lay the same on “the new bank,” in 1778, cost £21, according to estimate.

At this date, the fishing of Stow pool being worth £15 15s. 0d. a year, that of the Minster pool ought to

have been worth half this amount. But it and a garden were let for thirty shillings a year, on condition of the tenant keeping the surface of the water clean! That is, he paid a small rent for the garden and was paid £7 or £8 a year, for helping to keep an ornament clean.

What expensive things are the ornaments of "philosophers!"<sup>15</sup>

In 1782, and three years before the expiration of the tenant's interest, the lease of the malt mill was renewed, at the former reduced rent of £22 a year; an amount, which, in 1731 and 1764, had been agreed to, on account of building repairs. But the reason of prolonging the interest, in 1782, was a reservation of right, on the part of the corporation, to lay the pool dry, from time to time, for the purpose of cleansing it.

Now the rent of this mill, eighty years before, and that of Stow mill, in 1782, having been £48 a year each—over and above two thirds of the building repairs, paid for by the tenants, in this latter case—the rent of the upper mill, unshackled, was worth, at least, £50 a year, in 1782. But it was let for £28 less than this; to which, if the allowance to the fishing tenant and the assistance of the corporation be added, and but moderate abatement be made, on account of building repairs, *the expenses direct and indirect of trying to keep the Minster pool clean, nearly half a century ago amounted to upwards of £30 a year*—a fact perfectly harmonizing with previous geological deductions. The word "trying" is made use of; because *a grand cleansing of the pool-basin, at an expense of £760 took place in 1802-3, a year before the tenant's interest in the upper mill had expired.*

Although a detail of expenses on marsh land is purposely omitted, it may be noted, that so late as 1783,

part of Stow marsh continued such an unprofitable swamp, after all the soughing, and ditching and accession of soil, that it was let, for forty years, to a wealthy tenant, at a rent of only two guineas a year, for the first twenty years, and four guineas a year, for the remainder of the term !

In 1791, certain allowances were made for improving drains &c., in a "*boggy part of Pipe marsh*;" since sold, but to this day boggy.

In 1797, some £30 were expended, according to estimate, for *the clearing the Minster pool*, independently of the cost of this estimate and the payment for beer and ale on the occasion. And by the way, this is one of the instances, in which all items of expense are not recognised in the Treasurer's book.

To explain the value of the pools during the present century, an account of Receipt and Expenditure was first prepared; but as some item or other in it might only afford bait for the fishermen to nibble at, it is now stated, in general terms, that—supposing the fishing to have been paid for, all the time, and including a certain fine of £210—the average net rents of the mills, pools and Town Marsh have barely amounted to £126 a year, from March 1800 to September 1839; the interest, at 5 per cent., of all expenses on the sites being deducted, except those of the new bridge, in 1816.

Whereas, if an outlay of so much as £1,200 had been expended, in 1800, on the final drainage of the pools and in the conversion of their sites to gardens and the buildings into dwelling houses, the net rent had amounted—on the most moderate calculation, and deducting similar interest on the outlay—to more than double the net rent virtually received.

But considering the increase in value, which has taken

place in town lands, almost everywhere else ; considering also the decided bar to improvement in the neighbourhood, and from an examination of vouchers, which testify numerous items of expense, neither especially recognised in the Treasurer's account, nor within reach of the corporation, any unprejudiced person must feel convinced, that the present system has been directly and indirectly the cause of a vastly greater amount of public loss than that just alluded to.

And when it is learned how, in spite of all human opposition and under immense disadvantages, the comparatively neglected "lands gained out of both the pools" have gradually amended ; and how, in spite of endless renovations, the pools themselves have, as gradually, become more and more "filthy," the present system must appear a species of almost unaccountable infatuation. But if the public—FOR IT IS ALTOGETHER A PUBLIC QUESTION—will persist in it,

*What must be the expense of keeping the Pools clean ?*

To omit fractions, these waters measure nearly ten acres ; and balancing variations of deposit, 48,000 cubic yards of solid matter should be removed to deepen their basins, a yard. Now the expense of cleansing a pool commonly varies according to run of plank, &c. But as a sand-stone bottom facilitates the removal of mud from part of Stow pool, if only three-pence a yard be allowed, all over, the expense of merely placing the mud on the banks will amount to £600—that is, to £160 less than the cleansing of the Minster pool alone cost in 1802 and 1803 !

This expense may be defrayed—as some people fancy—in one of the following ways :

- 1st. By disposal of the mud to farmers.
- 2ndly. By prompt payment.
- 3rdly. Payment by instalments.
- 4thly. Public subscription.
- 5thly. Borough rate.

1st.—OF A DISPOSAL OF THE MUD TO FARMERS. Omitting the disgrace of cess-pools in a town, if the Body Corporate make this experiment, it may, at length, comprehend how much easier it is to jump into the mire, than to get out of it. The scheme of laying mud on cold, wet land cannot succeed; and stiff land, where it would succeed, is at a distance from the town. It is quite certain, that if eluvial deposit be laid on the banks, some of it would be most readily taken away, as being very choice in the best compost for certain sites. But as this question is strictly one for the decision of agriculturists and gardeners, it must be determined by ascertaining whether such persons would recommend cess-pools to be kept up in a town, for sake of manure, or to be finally drained, for sake of revenue.

2ndly.—PROMPT PAYMENT may be derived from two sources—the corporate and Conduit land incomes.

If under many and imperative demands, the corporation can afford, every twenty six years, to let their mills stand idle, for months together, so that they may neighbourly wheel out an ample bed of manure for estates not their own, they may well be said to have lived in “FINE” times. While, on the other hand, if the Feoffees of the Conduit lands spend almost a year’s income, every such era, to keep up “a kind of slow, sluggish lough, or pool, which runs, or rather glides heavily, through”<sup>16</sup> a city, by way of advancing—as they are bound by law—“the commonwealth of

the said city," then is this essay written in most egregious error.

3rdly.—OF PAYMENT BY INSTALMENTS. The expense of laying the mud upon the banks being £600, a payment of this sum, at 4 per cent., in 26 annual and equal payments, amounting—fractions in all these calculations omitted—to £38 a year, would reduce the gross mill and fishing rents of £196, to a net rent of £158.

Even this amount, however, would continue only so long as "*a great deal of repairs*," (like those in 1695, 1806 and 1811) were not required; or, which comes to the same thing, a reduction of rent be made to the tenants, (as very lately) *in consideration of the great sum of money expended by them,* in building and "*what fresh mill-stones they had occasion for*," together with "*mill gear*" and "*intrails*," and without account of "*loss of time, the mills stood idle*."

4thly.—OF PUBLIC SUBSCRIPTION. As agriculturists will not muster force enough to drag the city coach out of the mire, the unpractised, and therefore not very scientific, whips may be compelled to exalt a petition to their Hercules—THE PUBLIC. But if abstinence have left them no sinew to dig withal and no power to put shoulder to the wheel, they might just as well sit down in the mud as do this. For though a shower of some £800 answered a former supplication, it may be very readily explained how such assistance will never come again.

5thly.—A BOROUGH RATE for maintaining a pond would be rather too like the devouring tax on the frog-pond, in the fable. Yet paid for under what name it may be, the cleansing is paid for by a tax. A subscription is a direct tax; payment out of the corporate

fund is an indirect one, and leases at reduced rents amount to just the same thing.

A tax, in short, is raised and money sunk, over and over again, to endeavour to maintain ponds, which MUST receive filling-up material, and which occupy and obstruct sites, at once, capable of being converted to more useful, more ornamental, more profitable and—yet above all—to salubrious purposes.

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## OF REPAYMENT FOR LOSS OF THE POOLS.

Such repayment involving an outlay, it must be explained, that there exist most ample means of raising the capital required—partly under the provisions of Acts, passed in 1806 and 1815, for the *general* improvement of Lichfield; partly by drawing on the present Borough fund, and by sale of Borough property, the lease of which drops next year; partly by drawing on the income of the Conduit lands; and partly by the very large amount, which parties directly benefited ought to subscribe—an especial Rate put quite out of the question.

The plan, moreover, involved in the following estimate, is far from being the best; but if it shew, that, by finally draining the pools, the corporate income is not lessened, it shews enough. A detail of the plan is, at present, uncalled for; but to a select number of really competent judges, it will be fearlessly submitted.

## EXPENDITURE.

*Dr.*

	£.
To drainage of the Minster pool and conversion of the upper mill into a dwelling house, as per plan, .....	600
To drainage of Stow pool and conversion of Stow mill into a Parsonage house, as per plan, .....	600
To ten Elizabethan blue brick cottages, at Stow, .....	1200
To purchase of intersts in the Town Marsh, .....	600
To share of alteration of existing premises by the marsh, as detailed in plan of Bath rooms, &c. &c. ....	500
To incidental expenses, at 10 per cent., .....	350
	<hr/>
Total Outlay, £3850	

## RECEIPTS.

*Cr.*

	£.
By yearly rent of the Minster gardens, at half the rate of rent paid for "a piece of LAND gained out of the Minster pool," .....	67
By rent of house and premises, in Dam Street, .....	40
By Stow gardens, at 2s. a rod—half the rate of rent paid for some gardens, at Stow, .....	53
By Parsonage house, yard and garden, at Stow, .....	35
By Stow cottages, at cottage rent, in Lichfield, .....	65
By Nether gardens, at 2s. 6d. a rod, (9 Guineas an acre)..	87
By various premises, by the Nether gardens, .....	53
	<hr/>
Gross yearly rent, £400	

NOTE—Allowance for roads is amply deducted.

Now, claiming nothing on account of the moderation of this Estimate, if from the gross annual income of £400, so much as half be deducted, for twenty seven years and a half, to pay off £3,300—supposed, for illustration's sake, to be borrowed at 4 per cent.—the estimated net rent will yet remain somewhat in excess of

that, at present, derivable from the same premises. So that a sum of only £500 being allowed for the whole improvement, not a fraction of rent will be lost for the first period just named.

But the debt then paid off, the balance in favor of the proposed plan will be great, whether the lives in the lease of part of the Town Marsh shall have dropped or not—to say nothing of progressive improvement, under the one plan, and progressive expense, under the other.

And thus may the corporation be repaid in money, thus repaid by a character of measures, which must insure the immediate approbation of their educated fellow-citizens and the ultimate benefit of their own descendants.

REPAYMENT FOR LOSS OF ACCOMMODATION to the public, in the exact site of a flour mill would be idle to explain.

TO REPAY THE TOWN FOR LOSS OF ORNAMENT, in consequence of draining a pool, is by no means difficult, if it be fairly allowed what the character of ornament in the water is derived from.

Authorities of undisputed taste, both artists and architects, have certainly expressed *pointed* admiration of the beauty of our cathedral rising proudly above an adjoining sheet of water. But as excess of admiration causes imperfect vision, even in the best eyes, most of these authorities represent the water as a bold and valuable lake ; while some of them suggest what are now vastly improbable means of rendering the locality as unobstructing as it ought to be, even if the mirror had nothing to reflect, but disgrace.

In short, the picturesqueness to be repaid amounts to this :—that the cathedral of Lichfield is so exquisitely beautiful, that a duck-pond represented near it would tell with good effect in a print, the building and not the pond being the essential ornament. Without the building, who would lavish praise

“ On Stow’s calm lake and grassy shore ?”

or if an artist, like Stanfield, were to sketch its fellow lake with even the histrionic accompaniment of a sailing barge, what printseller, out of Lagado, would speculate on an engraving of it ? At cursory glance, no doubt, a stranger may admire them ; but if he be of inquisitive disposition, they must subsequently tend rather to his amusement. For surely the beautifying of the centre of a town, by swamping it, is comparable only to the church-warden’s “ beautifying” the carved oak roof of his church—by whitewashing it ! The once important character and even beauty of water in Lichfield, however, are readily granted. It is moreover granted, that had it not been in consequence of its defence, the present site would never have been selected for a cathedral, and consequently, there never would have been a City of Lichfield. But the face of nature and human wants are now vastly changed ; and towns, which conform not to natural change, must perish. So that, taking the very humblest view, if the pools were drained, and their locality cultivated by an improved order of society, the person, who finding fault with the change, would seriously propose the restoration of “ ornamental” sheets of water, would be repaid by no small share of public mockery.

## CONCLUSION.

According to the foregoing views, then, ALL interested parties are called upon to resolve, after fair and full consideration, whether the Lichfield pools must be immediately—and for ever—drained; or immediately—and for only a short season—cleansed. There is no time for that more than little folding of the hands to rest over the matter, so constantly complained of in Lichfield; nor is there any debateable mystery whatever for which course “Nature cries aloud.” It has been forcibly and beautifully observed, that “there is but one way of commanding Nature; and that is, by obeying her laws.” Her crying laws, geological and medical, are, that both the Lichfield pools be abolished, without delay; and by obeying and assisting these laws, a benefit of some kind MUST result to man.

In opposition to long cherished prejudice, the opinions of an anonymous writer may go for even less than he requires; and, in the present instance, this is barely so much as will substitute thought for random, uninquiring assertion. But had I a reputation worth staking upon the matter, I would willingly stake it, that if all parties here agree to think calmly of this—to them vastly important—question, they will agree to discharge, for once, their paltry differences

and, at once and for ever, to discharge the sluggish water of their pestilential pools. Involved then in the fortunes of the same commonwealth, let them unite—before it be too late—to amend the frame-work of that especial society, into which it has pleased God to call them, for the accomplishment of social duties. And looking forward to better things, both in art and nature, they may draw the veil of charity over the errors of the past.

## NOTES.

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1. STOW DITCH is mentioned in Shaw's History of Staffordshire. It was probably commenced in 667, the year in which Chad came to Lichfield.
2. COMMON DUNG-HILLS in towns—as sources of luck, according to the proverb—were formerly ( without intending a pun ) very common. Thus Minsheu defines the Spanish word *ALMULADAR* to mean “ a place without the city, into which the draffe and foulage of the whole city are cast.” And he cites corresponding names, in other languages ; as *MEST-POEL*, &c.
3. This document—drawn out soon after the erection of Langton's causeway—defines a church property, which extended from Shaw Lane to Swan Lane, in one direction ; and from Beacon Street to *the Bishop's pool*, in another. So that the Bishop's pool must then have reached to, if not beyond, Beacon Place, where the Merelich ( that is pool-marsh ) Well was evidently named, in part, because of its contiguity to the expanse of water.

It is here acknowledged, once for all, that this and similar allusions are made on the authority of Harwood's History of Lichfield.
4. THE CORPORATE ORDER, dated April 24th, 1730, may be referred to as an example of especial obscurity ; for in the

absence of comparison with other orders, it will imply one of the most Laputian schemes, that even aldermen ever yet thought of. The substance of it is this:—"Ordered, that a ditch, or gutter, be immediately made, on each side of the Minster pool, in order to turn a stream through the same: and that the middle stream of the said pool be stopt; and that the Bailiffs for the time being"—*the Bailiffs went out of office in July*—"and (four aldermen named) do employ persons to make such cuts and ditches." And the manner in which they were made may be readily understood, by comparing a map of that town-disgracing swamp called the moggs, or rather Mogys, with Plate 233, figure 12, in the Edinburgh Encyclopedia. For the plate, although given as a general diagram, appears almost a map, or plan, of "the Lichfield moggs."

That men call lands after their own names, is well known; and from Harwood's History, it appears that a family of the name of Mogys lived here, long ago.

5. As to the meaning of the name LECETFELLE, see Todd's Johnson's Dictionary, FELL and FRITH, and Lye's Saxon Dictionary, LÆCETFELD. The lakes here (now called pools) were evidently natural formations taken advantage of, as connected with mills; because whereas the mill-dams are one only about  $8\frac{1}{2}$  and the other about  $9\frac{1}{2}$  feet deep, eluvial deposit in the pool basins is found at a depth of 20 feet, or more—whence the expense and risk of building on certain sites in Lichfield.
6. Compare Minsheu's account of Lichwale, (milium marine) with Lye's definitions of Lac, Læc, Lec and Lic, a gift; Lic, flesh; Licean, to like; Lac, a pond or marsh; Lach, a cloak—whence the story about the Lichfield Saint Amphibalus (that is Saint Cloak)?—Leccian, to water; Lece, or Læce, a leech, or doctor; and Licitfield or Licedfeld &c., the name of a town.

As bearing on the meaning of this name, it may be noted, that—to say nothing of any immediately English dialect—in parts of North America, a marshy tract is called a *Lick*. Thus various salt licks are spoken of; and amongst them Big-bone Lick, in Kentucky, is not dissimilarly situated to the English *Licetfeld*—that is, to use Mantell's words, “in the midst of a group of low hills and traversed by a small stream.” (*Wonders of Geology, Lecture 2, 20*) The word *lich* obeys precisely the same rule as *dich*—correctly so spelled. Thus it is *dic* (Saxon for a trench,) *di-ce*, *dyke*, *dyche*, or *dich*; and so *lic*, a marsh, is *lic*, *li-ce*, *lyke*, *lyche*, or *lich*. the Saxon *c* is pronounced like the English *k*; and what some persons wrote *c* or *k*, others wrote *ch*, the final *e* having been also sounded as a distinct syllable, in early time. These peculiarities, moreover, are not confined to the Saxon language.

To understand how *lic*, a marsh, may be derived from *leccian*, to water, it must be noted, that, both in ancient Saxon and modern English, *i* and *e* are, at times, written irregularly, if not indiscriminately; as *licetere* or *leccetere* (Saxon) a hypocrite; *devil* (English) thus spelled, in opposition to many languages—and so of the other words.

7. See Ainsworth's definition of **ELUVIES**.
8. General History of Polybius, Book 4, ch. 5.
9. Rennell's Geography of Herodotus, Sec. 19.
10. Francis's Translation of Horace, **ART OF POETRY**. line 60, where Horace alludes to the change effected in consequence of draining the Pontine Marsh.
11. *Metamorphoses*, xv. 2.
12. See Tables and calculations of Mr. Edmonds and Mr. Milnes, **LANCET**, April 4th, 1835, &c.

13. Amongst the corporate orders made in the year 1767, it stands recorded, that *the depth of the common channel, in Bread-market Street, is a great inconvenience \* \* and that the water frequently stagnates* in it. Yet this nuisance remained unaltered, for so long a period as seven years afterwards, the “brick sough, from Quonian’s Lane to the Hart’s Horn (close to the Ditch) in St. John Street” not having been made until 1774. The filth and imperfect state of a common channel, in Lombard Street, (near the other end of the ditch) are also noticed. But—however strange it may appear in questions of medical police—a most offensive sewer is, to this day, permitted under those human sties, which compose the west side of Butcher Row.

14. *The escape of the north town from plague, in 1645—6* is, by no means, a solitary example of the kind. About Lichfield, in this particular, there can be no doubt; for, independently of Ashmole’s M.S., Sir R. Dyott especially writes, that, during the plague, he removed “out of one part, that was infected, to another, that was clear”—that is, he removed from Market Street to the Close.

Persons, who will not be persuaded, may retort, that when Asiatic Cholera raged in the neighbourhood, Lichfield experienced only a very few cases of it—and these in the Close. But strict inquiry must convince any one really acquainted with Asiatic Cholera, that the then reigning epidemic was not imported into Lichfield, the cases alluded to having been those of a malignant fever, generated and suppressed in a peculiar locality. And the very fact of a malignant disease originating here, under certain atmospheric excitement, shews the danger of that gloomy and unventilated Court, which is so justly denominated the *close Vicarage*.

15. See Boswell’s account of his first visit to Lichfield.

16. De Foe's description of Lichfield, in his Tour through Great Britain.

\* \* \* Quotations from Darwin, however pointed as local evidence, have been purposely omitted. Especial testimony, in favor of some parts of this essay, will be found in his *Philosophy of Agriculture* ; as, On springs, near Lichfield, and the manner in which water tends from them, over porous sandstone, to the valley ; because a thin sheet of clay, for the most part, separates the water from the stone. Of intercepting springs, and how after boring of auger holes, or sinking of wells, the water will pass away through the rock, partly in consequence of the porosity of sandstone, and partly in consequence of the vertical cracks and joints, made at the time of its elevation by subterranean fires, SEC. XI. 1. 3, 5, 7, 8, and PLATE 5. Of draining a morass, without an increased fall for the discharge of the streams—(the scheme resorted to in the Town Marsh and at Stow,) XI. 2. 1. Of putrid exhalations, X. 4. 3, 7, 8. Of fogs, XV. 3. 6. How plants are injured by the moisture of an undrained valley, X. 3. 8. Of black earth, garden mould and the best situations for gardens, X. 4. 3, XIII. 2. 2, and XV. 3. 5, 6.

















